

For discussion on Ephemeral Streams & DUs, 4-10-2018

1. Where should ephemeral stream go in the DU schema?

- What aquatic life do we expect to find there? → Very little; possibly some tolerant macroinvertebrates that only need water for a short time.
- Should it even have an aquatic life use? We do have aquatic life criteria assigned to these waters already (Limited aquatic life).
- Also, should wastewater effluent channel have an Aqu. Life use category or just a definition?

A. Under Other Waters (current draft's option)

(a) General categories

- Macroinvertebrate
- Cold
- Warm
- Wetland

(b) Category modifiers

- Naturally tolerant
- Altered

(c) Other waters

- **Ephemeral**
- Wastewater effluent channel

C. As a General Category

(a) General categories

- **Ephemeral**
- Macroinvertebrate
- Cold
- Warm
- Wetland

(b) Category modifiers

- Naturally tolerant
- Altered

(c) Other waters?

- Wastewater effluent channel?

B. Macroinvertebrate-Naturally Tolerant

(a) General categories

- Macroinvertebrate
- Cold
- Warm
- Wetland

(b) Category modifiers

- Naturally tolerant (includes ephemeral waters, which are naturally tolerant macroinvertebrate waters)
- Altered

(c) Other waters?

- Wastewater effluent channel?

2. Is ephemeral stream different from diffuse surface water (channel vs no channel)? Is ephemeral water different from diffuse surface water (focus on flow when precip or snowmelt)? (problem: don't want to include ephemeral wetlands...possibly state definition of ephemeral water excludes ephemeral wetlands?) Is there a need to keep those two classifications separate?

→ Summary:

- Ephemeral stream appears to only be used as a phosphorus exemption. No other references I could find.
- Diffuse surface water: I believe that because under the 104 LAL section it states that diffuse surface waters are LAL, that it would also get all other LAL criteria (toxics, etc), correct? In that section of 104 it specifically states that diffuse surface waters gets LAL criteria for temp, DO, pH, and certain effluent limits for BOD, TSS, DO. NR 104 also contains individual waters classified as diffuse surface water in the tables.
- See code references next page.

Existing definitions of Diffused surface waters and Ephemeral stream.

104.02(1) HYDROLOGIC CLASSIFICATIONS. (b) Diffused surface waters. This classification includes any water from rains, intermittent springs or melting snow which flows on the land surface, through ravines, etc., which are usually dry except in times of runoff. This category does not include waters at the land surface in the vicinity of agricultural or wastewater irrigation disposal systems.

NR 102.06 NR 102.06 Phosphorus. NR 102.06(2) (2) DEFINITIONS. In this section:

NR 102.06(2)(b) (b) "Ephemeral stream" means a channel or stream that only carries water for a few days during and after a rainfall or snowmelt event and does not exhibit a flow during other periods, and includes, but is not limited to, grassed waterways, grassed swales, and areas of channelized flow as defined in s. NR 243.03 (7).

X-Refs to Ephemeral

102.06(6) EXCLUSIONS [from Phosphorus criteria]. The following waters are excluded from subs. (3) (b), (4) and (5):
(a) Ephemeral streams.

- "Ephemeral" is not used in 102 (other than phosphorus), 104, or 105.
- According to the X-Ref manual, the definition of ephemeral stream is not x-referenced in any other code.

X-Refs to Diffuse surface water as defined in 104.02(1), from p. 116 of X-Ref doc:

NR 104.02 . (1) NR 102.245 (1), NR 106.55 (2), NR 106.56 (4), (5),
NR 210.06 (3) (g)

NR 104.02 Surface water classifications and effluent limitations. (3) VARIANCE CATEGORIES.

(b) *Limited aquatic life subcategory (marginal surface waters)*. 1. Applicability. This variance category may be applied to the continuous or noncontinuous stream hydrologic classification, except that it shall be applied to all surface waters classified as effluent channel, wetland or diffuse surface water.

2. Surface water criteria. The following surface water quality criteria shall be met in all surface waters included in this variance category:

- a. Dissolved oxygen shall not be less than 1 mg/L.
- b. The pH shall be within the range of 6.0 to 9.0.
- c. All other substances shall meet the acute and chronic toxicity criteria for the limited aquatic life subcategory specified in or developed pursuant to ss. NR 105.05 and 105.06.

3. Effluent criteria. a. The effluent limitations determined necessary to meet the surface water criteria listed above are enumerated in table 2.

TABLE 2

Parameter	Monthly Average (mg/L)	Weekly Average (mg/L)	Other (mg/L)
BOD ₅	20	30	—
Total Suspended Solids	20	30	—
Dissolved Oxygen	—	—	4 (minimum)

NR 102.245 Temperature criteria for limited aquatic life communities.

NR 102.245(1)(1) For the purposes of temperature criteria, all surface waters classified as diffused surface waters, wetlands and wastewater effluent channels, as defined in s. NR 104.02 (1), shall be characterized as limited aquatic life communities.

NR 106.55 Determination of water quality-based effluent limitations for temperature in WPDES permits.

NR 106.55(2) (2) LIMITATIONS FOR WATERS DESIGNATED AS LIMITED AQUATIC LIFE. The daily maximum effluent temperature limitation shall be 86°F for discharges to surface waters classified as limited aquatic life according to s. NR 104.02 (3) (b) 1. and as defined in s. NR 104.02 (1), except for those classified as wastewater effluent channels and for wetlands regulated under ch. NR 103.

NR 106.56 Establishment of water quality-based effluent limitations for temperature in WPDES permits.

NR 106.56(4) (4) REASONABLE POTENTIAL TO EXCEED A LIMITED AQUATIC LIFE EFFLUENT LIMITATION. A daily maximum effluent temperature limitation of 86°F shall be established in a WPDES permit for each month in which the representative daily maximum effluent temperature exceeds 86°F for discharges to limited aquatic life waters not classified as a wastewater effluent channel according to s. NR 104.02 (1), storm sewers or as a wetland regulated under ch. NR 103.

(5) REASONABLE POTENTIAL TO EXCEED A WASTEWATER EFFLUENT CHANNEL EFFLUENT LIMITATION. A daily maximum effluent temperature limitation of 120°F shall be established in a WPDES permit for each month in which the representative daily maximum effluent temperature exceeds 120°F for discharges to a wastewater effluent channel, as classified in s. NR 104.02 (1).

NR 210.06 Disinfection requirements.

NR 210.06(3) (3) A permittee subject to this chapter shall at the time of application for a WPDES permit provide information identified in this subsection which the department shall use in the determination of the need for effluent disinfection. The following information shall be used in identifying risks to human and animal health:

NR 210.06(3)(g) (g) The classification of the receiving water and downstream waters as determined in s. NR 104.02 (1).

Wastewater effluent channel (WVEC) - definition

NR 104.02 Surface water classifications and effluent limitations. (1) HYDROLOGIC CLASSIFICATION.

(d) *Wastewater effluent channels*. This classification includes discharge conveyances constructed primarily for the purpose of transporting wastes from a facility to a point of discharge. Drainage ditches (including those established under ch. 88, Stats.) constructed primarily for the purposes of relieving excess waters on agricultural lands shall not be construed as effluent channels. Modifications made to natural watercourses receiving wastewater effluents for the purpose of increasing or enhancing the natural flow characteristics of the stream shall not be classified as effluent channels.

→**Summary:** WVEC's get all LAL criteria and have a temp limit of 120°F.

X-Refs for WVEC

NR 104.02 Surface water classifications and effluent limitations. (3) VARIANCE CATEGORIES.

(See pasted text above: this section says all “effluent channels” shall be classified as LAL. Therefore would presumably get all LAL criteria.)

NR 106.55 Determination of water quality-based effluent limitations for temperature in WPDES permits.

[NR 106.55\(3\)](#) (3) LIMITATIONS FOR WATERS DESIGNATED AS WASTEWATER EFFLUENT CHANNELS. The daily maximum effluent temperature limitation shall be 120°F for discharges to surface waters classified as limited aquatic life wastewater effluent channels according to s. [NR 104.02 \(3\) \(b\) 1.](#) and as defined in s. [NR 104.02 \(1\) \(d\)](#).

Discussion on “Duly adopted” language for approving DU revisions and SSC

DRAFT 119.07 Submittal and approval of SSC. (1) SUBMITTAL OF SSC REQUESTS. The department may choose to specify a cyclical SSC submittal period. A requestor may submit an SSC proposal with the required documentation under s. 119.06 to the department for review and decision.

Note: In areas where a TMDL applies or may apply in the future, SSCs are most appropriately submitted to and approved by USEPA before a TMDL is submitted to EPA for approval. An SSC must have already been approved and taken effect before it can be used as the basis for a TMDL.

(2) APPROVAL OF SSC DEVELOPED USING STANDARD METHODS. If the department determines that an SSC developed using standard methods may be approvable, it shall conduct the following actions:

(a) Provide written justification for the SSC.

(b) Provide public notice of the proposed SSC justification for the change, and provide a 45-day public comment period and public hearing. Public notice includes notification of the proposal on the department’s website and through an electronic notification system, and notification to U.S. EPA.

Note: The department will send electronic notification to its water quality standards electronic notification system and to the WPDES permit application mailing list. The public can subscribe to the water quality standards electronic notification system on the department’s home page at <http://dnr.wi.gov/>. Requests to be placed on the WPDES permit application mailing list may be directed to the Department of Natural Resources, WPDES Permits, P.O. Box 7921, Madison, Wisconsin 53707-7921. Notifications to the mailing list will be sent electronically unless the requestor specifies a preference for a mailed copy.

(c) If the department receives a request for rulemaking on a proposed SSC or an objection to development of the SSC either at the hearing or in writing by the end of the comment period, the department will not proceed with the actions in pars. (d) and (e). Instead, the department may either initiate rulemaking or not proceed with the proposed SSC. Any person providing an objection to development of an SSC or a request for rulemaking shall provide a written rationale and basis for their request.

(d) If there are no requests for rulemaking for the SSC or objections to development of the SSC, the department may issue a final written determination. The final determination shall be published on the department’s website. The department shall submit the SSC to U.S. EPA for approval no earlier than 30 days after publication, unless the SSC final determination was challenged during the 30 day period pursuant to chapter 227, Stats.

(e) If the U.S. EPA approves the SSC, the department shall publish the SSC using a publicly-accessible data system or digital mapping format available on the department’s website.

Note: The department’s water quality standards website can be accessed at: <http://dnr.wi.gov/topic/surfacewater/standards.html>. The department’s online mapping tool, the Water Condition Viewer, can be accessed at: <http://dnr.wi.gov/topic/surfacewater/wcv/>. These may also be accessed by visiting the department’s home page at <http://dnr.wi.gov/> and searching using key words.

(3) APPROVAL OF SSC DEVELOPED USING ALTERNATIVE METHODS. If the department determines that an SSC developed using an alternative methodology under s. NR 119.05 may be approvable, the department may initiate rulemaking subject to the procedures in Wis. Stat. ch. 227. An SSC based on alternative methods requires promulgation of the SSC by rule before taking effect.

DRAFT 102.044(4) APPROVAL AND PUBLICATION OF REVISED DESIGNATED USES FOR INDIVIDUAL WATERBODIES. The department shall periodically propose any revised designated uses for individual waterbodies using procedures in this subsection. Any revision to designated uses shall be consistent with 40 C.F.R. s. 131. When proposing to revise or remove a designated use, the department shall do the following:

(a) Document the justification for the change.

(b) Provide public notice of the proposed change and justification for the change and provide a 45-day public comment period and public hearing. Public notice includes notification of the change on the department's website and through an electronic notification system, and notification to U.S. EPA.

Note: The department will send electronic notification to its water quality standards electronic notification system and to the WPDES permit application mailing list. The public can subscribe to the water quality standards electronic notification system on the department's home page at <http://dnr.wi.gov/>. Requests to be placed on the WPDES permit application mailing list may be directed to the Department of Natural Resources, WPDES Permits, P.O. Box 7921, Madison, Wisconsin 53707-7921. Notifications to the mailing list will be sent electronically unless the requestor specifies a preference for a mailed copy.

(c) If the department receives a request for rulemaking to a proposal for a revised use or removal of a use either in writing or at the hearing, the department will not proceed with the actions in pars. (d) and (e). Instead, the department may either initiate rulemaking or not proceed with the designated use change that was the subject of the request.

(d) If there are no requests for rulemaking for a designated use change or removal of a designated use, the department may issue a final written determination. The final determination shall be published on the department's website. The department shall submit the designated use change or removal to U.S. EPA for approval no earlier than 30 days after publication, unless the designated use final determination was challenged during the 30 day period pursuant to chapter 227, Stats.

(e) If the U.S. EPA approves the designated use change, the department shall publish the updated designated use using a publicly-accessible data system or digital mapping format available on the department's website. Once the revised use is published for a waterbody or waterbody segment, the criteria under chs. NR 102 through 105 that apply to the revised use are the criteria that apply to the waterbody or waterbody segment.

Note: The department plans to propose revisions to designated uses during its biennial waterbody assessment process under s. NR 102.51 (2). The department's water quality standards website can be accessed at: <http://dnr.wi.gov/topic/surfacewater/standards.html>. The department's online mapping tool, the Water Condition Viewer, can be accessed at: <http://dnr.wi.gov/topic/surfacewater/wcv/>. These may also be accessed by visiting the department's home page at <http://dnr.wi.gov/> and searching using key words.